# CLAIMS

[001] An electronic module comprising at least one circuit carrier (3) coated on both sides with an electroconductive material, wherein the circuit carrier (3) is fitted with a first group of electronic components (2) for forming a user interface and with a second group of electronic components (4) for forming a computing and control module, characterised in that the first group of electronic components (2) for forming the user interface is applied and connected on a first side (5) of the circuit carrier (3) and the second group of electronic components (4) for forming the computing and control module is applied and connected on a second side (7) of the circuit carrier (3) opposite to the first side (5).

[002] The electronic module according to claim 1, characterised in that the circuit carrier (3) is free from through-connection points, in particular STH through-connection points.

[003] The electronic module according to claim 1 or claim 2, characterised in that the circuit carrier (3) comprises at least one signal transmission device (6) for two-way transmission of control signals between the first group of electronic components (2) on the first side (5) of the circuit carrier (3) and the second group of electronic components (4) on the second side (7) of the circuit carrier (3) and/or for supplying the first side (5) with electrical power via the second side (7) or conversely.

[004] The electronic module according to claim 3, characterised in that the signal transmission device (6) comprises at least one plug-in element (8) which is plugged at an edge region (11) of the circuit carrier (3) via opposite plug-in regions (12) formed on the first and the second side (5; 7) of the circuit carrier (3) and conjugate with one another.

[005] The electronic module according to claim 3 or claim 4, characterised in that the signal transmission device (6) comprises at least one conductor element (9), in particular a cable jumper, which electrically connects a first contact region (13) on the first side (5) of the circuit carrier (3) to a second contact region (13') on the second side (7) of the circuit carrier (3).

[006] The electronic module according to any one of claims 3 to 5, characterised in that the signal transmission device (6) comprises at least one through-connection element (10) which runs through a through-hole (15) in the circuit carrier (3) and electrically connects a first contact region (14) on the first side (5) of the circuit carrier (3) to a second contact region (14') on the second side (7) of the circuit carrier (3).

[007] The electronic module according to claim 6, characterised in that the through-connection element (10) is a plug-in element especially formed of sheet metal, which comprises a plane contact surface (16) and a pin region (17), which is spring-connected to the contact surface (16) by means of a spring section (18), wherein the contact surface (16) abuts flush against the contact region (14, 14') of the circuit carrier (3), and

wherein the pin region (17) runs through the through hole (15) when the plug-in element (10) is inserted in the through hole (15) as a through-connection element (10).

[008] The electronic module according to any one of the preceding claims, characterised in that the first group of electronic components (2) are components mounted on an SMD region (19) of the first side (5) of the circuit carrier (3) by means of SMD technology and the second group of electronic components (4) are components mounted on an SMD region (19') of the second side (7) of the circuit carrier (3) by means of SMD technology and also components mounted in a THD region (20') of the second side (7) of the circuit carrier (3) by means of THD technology, wherein the THD region (20') of the second side (7) is different from the SMD region (19') of the second side (7) and wherein the SMD region (19') of the second side (7) is a region corresponding to and opposite to the SMD region (19) of the first side (3).

[009] The electronic module according to any one of claims 1 to 7, characterised in that the first group of electronic components (2) are components mounted on an SMD region (19) of the first side (5) of the circuit carrier (3) by means of SMD technology as well as components mounted on a THD region (20) of the first side (5) of the circuit carrier (3) by means of THD technology, and the second group of electronic components (4) are components mounted on an SMD region (19') of the second side (7) of the circuit carrier (3) by means of SMD technology, wherein the THD region (20) of the first side (5) is different from the SMD region (19) of the first side (5) and wherein the SMD region

(19') of the second side (7) is a region corresponding to and opposite to the SMD region (19) of the first side (3).

[010] A method for producing an electronic module according to any one of claims 1 to 9, which comprises the following process steps: loading the first side (5) of the circuit carrier (3) with a first group of electronic components (2) for forming a user interface of the module; loading the second side (7) of the circuit carrier with a second group of electronic components (4) for forming a computing and control module; and c) setting up signal transmission and/or power supply connections between the first side (5) and the second side (7).

[011] The method according to claim 10, characterised in that the process step c) further comprises the following process steps: forming plug-in regions (12) which extend on an edge region (11) in an opposed and mutually conjugate manner on the first side (5) and the second side (7) of the circuit carrier (3); and plugging the plug-in element (8) onto the oppositely constructed and mutually conjugate plug-in regions (12).

[012] The method according to claim 10 or claim 11, characterised in that the process step c) further comprises the following process steps: forming at least one first contact region (13) on the first side (5) of the circuit carrier (3) and at least one second contact region (13') on the second side (7) of the circuit carrier (3); and connecting the at least one first contact region (13) to the at least one second contact region (13') by means of a conductor element (9).

[013] The method according to any one of claims 10 to 12, characterised in that the process step c) further comprises the following process steps: forming at least one through hole (15) in the circuit carrier (3); forming at least one contact region (14) on the first side (5) of the circuit carrier (3) and at least one second contact region (14') on the second side (7) of the circuit carrier (3); and inserting a through-connection element (10) into the at least one through hole (15) to electrically connect the at least one first contact region (14) to the at least one second contact region (14').